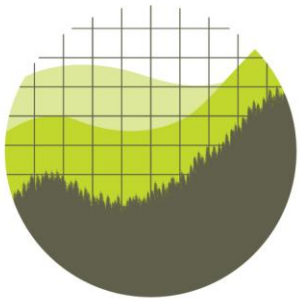

Institute *for*
Policy Integrity

new york university school of law

November 4, 2010

VIA ELECTRONIC SUBMISSION

Federal Communications Commission
Attention: GN Docket No. 09-191; WC Docket No. 07-52

Subject: Comments on Public Notice, Further Inquiry Into Two Under-Developed Issues in the Open Internet Proceeding, 75 Fed. Reg. 55,297 (Sept. 10, 2010); GN Docket No. 09-191; WC Docket No. 07-52

The Institute for Policy Integrity submits the following Reply Comments to the Federal Communication Commission's recent public notice entitled Further Inquiry Into Two Under-Developed Issues in the Open Internet Proceeding ("Further Inquiry"). The Institute for Policy Integrity ("Policy Integrity") at New York University School of Law is a non-partisan think-tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, cost-benefit analysis, and public policy.

At various points throughout the Federal Communication Commission's ("Commission") Open Internet Proceeding, Policy Integrity has submitted comments analyzing the net neutrality debate from an economic perspective, to assist the Commission with understanding the economic issues underlying its decision. Those comments explored the fundamental tradeoffs involved in net neutrality policy and the ways that federal policies can maximize the economic surplus generated by the Internet for both market participants and the general public. Citing the existence of externalities inherent in the Internet market, and the two-sided nature of the market, those comments argued that net neutrality protections were economically justified.

The Commission now seeks additional input on two critical issues: how specialized services should be dealt with, if at all, in the current proceeding, and whether open Internet rules should be applied to wireless access services in addition to wireline broadband access services. Tracking the issues and policy alternatives in the order in which they are raised in the Further Inquiry, these reply comments present economic arguments for why broadband access service ("broadband") should be defined broadly, whereas any specialized service exemption should be narrow and predicated on a well-delineated definition of what constitutes a "specialized service." They then lay out

economic justifications in support of applying net neutrality rules to wireless. Answers to some of the concerns raised by other commentators are interwoven throughout.

I. Specialized Services Should Be Restricted With an Eye Toward Maintaining an Alignment of Marketplace Incentives

A decision by the Commission to enact net neutrality protections, but to exempt a class of specialized services from those rules, should be undertaken with recognition of the uniqueness of the Internet market, and the positive externalities generated by that market. The Internet market exhibits failures warranting circumscribed government intervention.[1] Commentators who argue that there is no failure in the Internet market do not recognize how the structure of transactions within this market tend to distort the incentives of some market participants and result in under-investment.[2]

The Commission recognizes the danger of specialized services encroaching upon and eventually "supplanting" a neutral network.[3] Indeed, net neutrality protections could prove hollow if providers are allowed to deliver specialized services that duplicate or effectively substitute for the services, content, or applications that run on open platforms. A broad definition of specialized services could pervert investment incentives if network owners are incentivized to neglect or delay investment in broadband expansion or maintenance because congestion in the open platform increases the value of specialized services.

At the same time, the Commission is committed to facilitating unique services—services with a "different scope or purpose" than traditional broadband—by exempting certain applications or content from non-discrimination rules.[4] To clarify and resolve this tension, the Commission has requested input on the merits of six proposed policy approaches for dealing with specialized services. The sub-sections below offer a brief economic analysis of each approach, suggesting where there is sufficient evidence or rationale to support the Commission's action, and where gathering further information may be warranted.

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[1] For a fuller discussion of these market failures and their effects, see Inimai M. Chettiar and J. Scott Holliday, *Free to Invest: The Economic Benefits of Preserving Net Neutrality* 7-16 (Institute for Policy Integrity, Report No. 4, 2010), *available at* http://policyintegrity.org/publications/detail/free-to-invest ["Free to Invest"] (attached to Comments from Institute for Policy Integrity at New York University School of Law to Federal Communications Commission, "Preserving the Open Internet, Broadband Industry Practices," 74 Fed. Reg. 62,638 (Jan. 14, 2010) (GN Docket No. 09-191, WC Docket No. 07-52).

[2] *See, e.g.*, Comments from AT&T Inc. to Federal Communications Commission, "In the Matter of Preserving the Open Internet Broadband Industry Practices," GN Docket No. 09-191, WC Docket No. 07-52 (Oct. 12, 2010) at 32 (stating that the Internet market "involve[s] *no anticompetitive conduct, no market failure*") (emphasis in original) ["AT&T Comments"].

[3] Further Inquiry Into Two Under-Developed Issues in the Open Internet Proceeding, 75 Fed. Reg. 55,297, 55,299 (September 10, 2010) (GN Docket No. 09-191; WC Docket No. 07-52) ["Further Inquiry"].

[4] *Id*.

A. Definitional Clarity

Under the heading "Definitional Clarity," the Commission proposes a net neutrality regime where open Internet rules would apply to all types of "broadband Internet access service," and that key term is defined "clearly and perhaps broadly."[5] Any service not falling within that definition would be considered "specialized" and expressly exempted from open Internet rules.

A carefully crafted exemption for particularly unique services would provide flexibility for the market and give regulators room to respond to changing technology. However, for a specialized service exemption to be effective, the Commission must define its terms with precision. Its language must be specific enough for content developers and Internet Service Providers (ISPs) to be able to distinguish, with consistency and accuracy, between services that must be treated neutrally and those that are exempted. Failing to establish this baseline will simply push the most important regulatory question facing the Commission today down the road and create unnecessary uncertainty.

Regarding the definitions themselves, the Commission should define 'broadband Internet access service' ("broadband") broadly while the definition of 'specialized service' should be narrowly tailored. Services that provide an adequate user experience over a neutral end-to-end platform should not be considered specialized services. That category should be reserved for applications or content that cannot run adequately over the open network, and which do not replicate or effectively serve as substitutes for services that are available, or could be made available, on the open network. [6]

Some commentators worry that a regulatory regime that requires neutrality for all but a narrow class of unique services will stifle investment and innovation in both specialized services and infrastructure. AT&T, Time Warner, Verizon, and others contend that the definitions put forward by the Commission will reduce or stifle investment in specialized services, infrastructure, or both.[7] As an alternative, they propose defining broadband narrowly, to include only those services that offer open-ended Internet

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[5] *Id.*

[6] *See also infra* Part I.E. (elaborating further on how specialized services should be defined and circumscribed).

[7] *See, e.g.,* AT&T Comments, *supra* note 2 at 15 (contending that the Commission would be "throw[ing] a wet blanket of investment-chilling regulatory uncertainty on the nascent market for specialized services" if it were to adopt the definitional approaches proposed in the Further Inquiry); *Id.* at 11, 14 (suggesting that restrictions on specialized services would reduce investment in infrastructure); Comments of Verizon and Verizon Wireless on Under-Developed Issues in the Open Internet Proceeding, to Federal Communications Commission, "In the Matter of Preserving the Open Internet, Broadband Industry Practices," GN Docket No. 09-191, WC Docket No. 07-52 (Oct. 12, 2010) at 51 ("The flexibility to offer such new services [i.e., specialized services] is critical to justify continued investment to deploy and expand capacity.") ["Verizon Comments"]; Comments of Time Warner Cable Inc., to Federal Communications Commission, "In the Matter of Preserving the Open Internet, Broadband Industry Practices," GN Docket No. 09-191, WC Docket No. 07-52 (Oct. 12, 2010) at 13 (arguing that restricting specialized services would "hold back the evolution of an emerging class of services") ["Time Warner Comments"].

connectivity; this would exclude, *ab initio*, all limited-purpose services that employ the common Internet Protocol addressing scheme.[8]

The central response to these concerns is that they fail to distinguish adequately between types of investment in the Internet. There are two complementary goods that make up the Internet: infrastructure and content. By and large, investments in these two goods are made by distinct groups of market players. Within the content side, the field is even more varied, as a diverse array of millions of content providers create a vast range of applications, websites, and services. The specialized services at issue here are only one type of content. Commentators who worry about chilled innovation in the areas of infrastructure and specialized services ignore the benefits generated by all other content, and the importance of ensuring proper incentives that continue spurring innovation and investment in that content.

Several commentators further oppose the Commission's definitional proposal on the ground that it would place the burden on providers to demonstrate a service is specialized, thereby fostering long-term investment uncertainty as industry is forced to litigate, in piecemeal fashion, whether a service falls under the specialized exemption.[9] These commentators predict that ISPs will innovate less and be less willing to develop new services for fear they will waste investment dollars on technology that will be subsequently outlawed. However, there is likely to be litigation regardless of how the Commission defines specialized services, and no reason to believe that reallocating the burden of proof to parties challenging a specialized service designation would decrease the amount or costs of that litigation.

To minimize the potential inefficiencies or harm arising from uncertainty over whether certain content qualifies as a specialized service, the presumption should be in favor of designation as standard broadband service. ISPs will be required and expected to run all services over the best-effort network, unless or until they establish that a service qualifies as specialized under the rules. This framework establishes the status quo of a neutral framework as the baseline, and requires justifications for departures from that baseline. In this way, uncertainties about the effects of specialized services on the open platform can be managed. The alternative would allow rapid departure from the status quo and require the Commission or interested parties to engage in *ex post* efforts to control ISP decisions. Given the current neutral status quo, a system that gives ISPs the

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[8] *See, e.g.*, Comments of National Cable & Telecommunications Association, "In the Matter of Preserving the Open Internet, Broadband Industry Practices," GN Docket No. 09-191, WC Docket No. 07-52 (Oct. 12, 2010) at 6 (suggesting broadband be defined as a "mass-market residential broadband Internet access service that provides connectivity to all or substantially all IP addresses") ["NCTA Comments"]; AT&T Comments at 16 ("[T]he Commission should define 'Internet access service' to mean a service that offers to the public the capability to transmit data to, and receive data from, all or substantially all endpoints that have a unique IANA-assigned Internet address that is publicly announced and globally reachable (either directly or through a proxy)."); Verizon Comments, *supra* note 7 at 56-58.

[9] *See, e.g.*, AT&T Comments at 18 ("[A] case-by-case approach would merely generate long-term investment uncertainty as the industry litigates, service by service, precisely what services are subject to any 'neutrality' rules.").

opportunity to define specialized services in the first instance will increase uncertainty about the effects of non-neutral treatment on the Internet market.

Commentators hotly disagree as to whether the Commission should confront and define specialized services in the current proceeding, or wait until technology of specialized services is further developed and their functionalities easier to ascertain. There is no clear justification for addressing specialized services now, versus waiting.

The tradeoff currently facing the Commission is between the increased information that will be generated through waiting versus the comparative certainty that clear rules would provide. Waiting to regulate may be particularly valuable if there is a high degree of uncertainty surrounding the impact of regulation on a changing market. On the other hand, greater certainty about the contours of regulation would encourage investment in specialized services by reducing the risk that new regulation could impede existing businesses. There is no clear reason to believe that the balance of uncertainties and investment tradeoffs favors acting now or waiting.

B. Truth in Advertising

The Further Inquiry proposes a truth in advertising requirement that would compel ISPs to offer any specialized services separate from regular Internet services, and to offer broadband as a standalone service, in addition to any bundled products. In addition, ISPs would be prohibited from marketing specialized services as general broadband access services; nor could they advertize specialized services as a substitute for general broadband access service.

This policy proposal has strong justifications. Allowing consumers more choice is often assumed to increase welfare. Consumers benefit from the opportunity to purchase precisely the level of service they desire, rather than having to buy a bundle of services that may include numerous unwanted applications provided at additional cost.

In some markets, the bundling of goods promotes efficiency, since bundles allow consumers to purchase complementary goods at reduced costs. However, in less competitive markets, or markets where there is vertical integration, bundling allows companies who enjoy a market advantage in one product to force additional products on uninterested consumers.

The vertical integration at issue here is the integration—or bundling—of broadband services with specialized services. If bundling were allowed, an ISP that enjoys market power in broadband service could bundle that service with specialized services, and use their market power in the former industry to dominate the latter. The result would be inefficient outcomes in the market for specialized services. Forcing ISPs to "break up the bundle" short circuits this effect by allowing consumers to opt out of purchasing unwanted specialized services from their broadband access provider. Such regulation thus protects against vertical integration and the leveraging of market power in ways that could harm consumers.

Some commentators note that providers already bundle broadband and other services together, and that such bundles produce value for and are favored by consumers.[10] Again, in a highly competitive market this type of bundling would not be problematic, because if the bundles did not bring additional value to consumers, the bundling would simply encourage new competitors to spring up. Competition in the broadband market, however, has proven to be an enduring issue of concern. A rule that requires providers to offer goods as standalone products, in addition to bundles, therefore has the potential to yield significant benefits for consumers at minimal cost. If it is true that the bundling of broadband with other services generates value for consumers, then consumers will continue to purchase bundles even if the same services are offered separately. On the other hand, if the bundles are not generating value to consumers, but rather serving to enhance market power, the rule prevents that from happening.

C. Disclosure

The Commission proposes a disclosure requirement that would mandate transparency in the provision of specialized services, so that their impact on the market can be monitored and evaluated on an ongoing basis by consumers, the Commission, and third parties. There are strong justifications for this proposal. Requiring ISPs to disclose their network management practices will ensure that content providers, investors and end-users have clear information on which to make business and consumption decisions.

The Internet is a complementary good consisting of access service and content. The quality of the Internet to content producers, to ISPs, and to the using public, requires that these two goods work in concert. If there is a mismatch in investments—say, if content developers invest in producing a particular service or application, while the network owners invest in their network in a way that makes delivering that service or application more difficult—then the value of the Internet will decrease for all parties. New content will not work well on new infrastructure, and improving or enhancing the quality of the Internet will become significantly more expensive. A strong disclosure requirement will help content providers and ISPs to coordinate their respective investments. Facilitating coordination produces higher returns on aggregate investment and enhances the quality of the Internet for end-users.

It is also a worthwhile proposal for the Commission to monitor continuously the impact of specialized services on standard broadband capacity. If ISPs are able to monetize specialized services at a higher rate during times of network congestion, they could be incentivized to facilitate congestion by blocking out large amounts of broadband capacity for specialized services, or by simply failing to invest sufficiently in their network. This could lead to slower growth in broadband capacity and potentially reduce the value of the network to content and end-users; this reduction in value could amount

[10] *See, e.g.*, AT&T Comments, *supra* note 2 at 22 (noting that AT&T is one of many providers who currently offer broadband access service bundled with "a 'specialized service' that provides prioritized access to particular content," and that such bundling "produces enormous consumer value").

to more than what ISPs would gain from such practices. The Commission is correct that if specialized services are permitted to grow and eventually inhabit a large fraction of the capacity formerly utilized by standard broadband, it could serve as a backdoor way to avoid the neutrality requirements the Commission is proposing.

Many industry commentators suggest that the Internet market has thrived because the Commission has so far abstained from regulating discriminatory treatment of content.[11] Simply because the Internet market and investment has been flourishing does obviate the need for neutrality protections now. First, most of the comments that make this point fail to distinguish between types of investment, and thus do not acknowledge the fundamental tension between investment tradeoffs in the Internet market. Efficient amounts of investment in both infrastructure and content are necessary to maximize surplus from the Internet market. In light of the relative ease of direct government support for investment in infrastructure, as compared to content, the best method by which the government can alleviate intrinsic market failures (arising from informational and network externalities), is by providing direct support for infrastructure, while simultaneously enforcing net neutrality rules that benefit content developers. This policy would help ensure that the distribution of surplus generated by the Internet remains diffuse, and encourages beneficial amounts of investment in both aspects of the Internet.

Second, recent technological developments mean that ISPs have greater power to engage in discriminatory treatment of content. In the past, technological limitations essentially imposed neutrality of treatment as the default, but as these limitations have fallen, there is greater need for agency action.

Some commentators suggest there is no basis for imposing new disclosure obligations on providers because too many technical details would potentially confuse consumers. This concern is irrelevant to the proposal put forth in the Further Inquiry, which would impose mandatory disclosure (as opposed to labeling) requirements. In line with regulatory principles recently articulated by the Office of Information and Regulatory Affairs, the goal of a well-designed disclosure policy is to "ensure that relevant information is salient and easy to find and understand," and conveyed "at the time when it is needed."[12] Accordingly, not every technical detail that companies are required to disclose also needs to be included on consumer labels.[13] The Commission can decide which information must be presented clearly to consumers at the point of purchase, and which information only needs to be made accessible, or otherwise reported, so that content providers or analysts can use the data.

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[11] *See, e.g.*, Time Warner Comments, *supra* note 7 at 8.

[12] OFFICE OF INFORMATION & REGULATORY AFFAIRS, EXECUTIVE OFFICE OF THE PRESIDENT, 2010 REPORT TO CONGRESS, APPENDIX D: DISCLOSURE AS A REGULATORY TOOL 99, *available at* http://www.whitehouse.gov/omb/inforeg_default.

[13] *Id.* ("There is a difference between making a merely technical disclosure – that is, making information available somewhere and in some form, regardless of its usefulness – and actually informing choices.").

D. Non-Exclusivity in Specialized Services

Additionally, the Commission seeks input on a non-exclusivity proposal that would require ISPs to offer all third parties the opportunity to launch specialized services on the same terms the ISPs offer to their own vertically integrated affiliates, or other third parties. This requirement would prevent ISPs from exercising their market power in broadband service to lock in higher revenues earned from specialized services.

The existence of market power is an important consideration here. In the absence of market power, a non-exclusivity requirement would not be necessary. However, unique characteristics of the Internet market offer at least two reasons why such a requirement may be justified. First, because Internet service exhibits network effects, the market tends, naturally, to develop a small number of market players. Where imperfect competition exists, there may be opportunities for companies that provide both access service and content to privilege their own content over that of competitors.

Second, a non-exclusivity rule will also benefit content developers who lack market power. For content developers who do not currently enjoy market power, a non-exclusivity rule will generate the same outcome as a more competitive market: an incentive for ISPs to provide equal access to applications no matter their developer. Non-exclusivity provides low-cost insurance against excessive market power in both content and broadband markets.

Commentators such as AT&T assert that a non-exclusivity provision is unnecessary because there is strong, vibrant competition in today's market. They argue that there is no evidence suggesting that existing exclusivity agreements decrease competition or investment, or that future agreements would have these effects.[14] These arguments overstate the effects of a non-exclusivity rule. If these commentators are correct, and current levels of competition enforce equal access for all specialized service applications no matter their developer, there may be no need for the rule, but nor will it have any negative impact. However, if there is insufficient competition, an exclusivity prohibition will provide the beneficial insurance described above.

A few commentators suggest that a more appropriate way for the Commission to respond to the risk of anticompetitive conduct on behalf of vertically integrated firms would be to examine alleged anticompetitive practices case-by-case.[15] However, there is no reason to think that an individualized approach is superior to the non-exclusivity policy presented in the Further Inquiry. A case-by-case approach may provide the Commission and market participants with greater flexibility in response to new technologies. On the other hand, a generally applicable policy would set out clearer rules-of-the-road for market players, creating predictability that encourages investment on both sides of the market. Optimally effective regulation will balance both of these

[14] *See* AT&T Comments, *supra* note 2 at 28-30 (arguing that exclusivity agreements benefit competition and investment, citing the company's own experiences with eReader and IPTV as examples).
[15] *See id.* at 30 (noting the applicability of antitrust laws); NCTA Comments, *supra* note 8 at 6 (same).

values. The non-exclusivity rule proposed by the Commission achieves a reasonable balance.

E. Limiting Specialized Service Offerings

The Commission seeks feedback on whether it should restrict specialized service offerings to "only a limited set of new specialized services" characterized by their functionality.[16] There is strong justification for this approach, which can help ensure that the exemption for specialized services does not undercut neutrality protections. Since specialized services will fall outside the scope of open Internet rules, ISPs will have incentives to classify as specialized as many of their existing services and new services as possible, in order to realize the additional revenue those services can earn through paid prioritization. *Ex-ante* rules creating categories of specialized services provide guidance for ISPs and facilitate the Commission's monitoring.

A number of commentators, mostly representing providers, believe that limits on specialized services would hurt consumers. Time Warner, AT&T, Verizon, and the National Cable and Telecommunications Association, assert that limits would undercut competition, discourage investment, and reduce incentives for broadband deployment.[17] These commentators further argue that there is no record of harms associated with specialized services, and that the proposed policy would cast uncertainty on existing market activity.

These arguments are misplaced. As explained above, arguments suggesting limitations on specialized services would hurt innovation and investment fail to account for investment tradeoffs and the impact non-neutrality would have on innovation and investment in other areas of the market. Regulation that draws the contours of specialized services in line with their functionality would ensure that the number and types of specialized services remain circumscribed. As indicated above, if specialized services are allowed to replicate or replace applications or content that are currently transmitted over the neutral broadband network, the specialized services exemption will undercut neutrality protections.

Several commentators cite telemedicine and similar technologies as examples of socially valuable content that ISPs would be unable to prioritize, should the Commission adopt a limitation policy.[18] This is not necessarily true. Services with functionality as distinct as telemedicine can be designated "specialized" as a class and afforded enhanced priority on the network.

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[16] Further Inquiry, *supra* note 3 at 55,299.

[17] *See supra* note 7 and accompanying text.

[18] *See, e.g.*, Comments of Telecommunications Industry Association Regarding Underdeveloped Issues in the Open Internet Proceeding, to Federal Communications Commission, "In the Matter of Preserving the Open Internet, Broadband Industry Practices," GN Docket No. 09-191, WC Docket No. 07-52 (Oct. 12, 2010) at 11 (citing telehealth as an example of a specialized service that enhances public welfare) ["Telecommunications Comments"]; AT&T Comments, *supra* note 2 at 5-6 (listing utility meters, freight-tracking devices, and health monitors as examples of services that deserve prioritization).

F. Guaranteed Capacity for Broadband

Lastly, the Commission seeks comment on a proposal that would "[r]equire broadband providers to continue providing or expanding network capacity allocated to broadband Internet access service, regardless of any specialized services they choose to offer." One possible incarnation of this policy would "prohibit specialized services from inhibiting the performance of Internet access services at any given time…[such as] periods of peak usage."[19]

As a quantity regulation, a rule guaranteeing a pre-set amount of capacity for neutral broadband would have potential negative consequences,[20] and would represent a relatively extreme form of government intervention. Such a move would be appropriate only if other efforts to overcome inefficiencies in the Internet market fail, and the benefits would be outweighed by the costs.

If the five policy approaches discussed in the foregoing sections are fully adopted and implemented, there may be no need to take the bolder step of guaranteeing capacity during peak or off-peak hours. Again, one of the key considerations in developing open Internet rules should be removing, or reducing to the extent possible, incentives for ISPs to maximize their revenue by underinvesting in network infrastructure and maintenance. If the Commission is unable to accomplish this goal within the purview of its regulatory regime, the regime as a whole should be restructured to better ensure that broadband service remains properly capitalized, in light of a narrow exemption for services that truly serve functions that are unique or distinct from services available on the open network.

In particular, placing the burden on ISPs to show that a category of application or content meets the criteria for a specialized service allows the Commission to manage the flow of specialized services into the Internet market, ensuring that a rapid reduction in the capacity of the open platform does not occur.

II. Open Internet Rules Should Apply to Wireless

The Commission seeks comment on the question of whether net neutrality rules should apply at all to wireless. If this question is answered affirmatively, the Commission seeks further input regarding the appropriate scope of such rules, whether they should differ substantively from those applied to broadband, and on what basis, if any, wireless providers should nonetheless be able to prioritize certain traffic over others.

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[19] Further Inquiry, *supra* note 3 at 55,299.

[20] *See generally* Cameron Hepburn, *Regulation by Prices, Quantities, or Both: A Review of Instrument Choice*, OXFORD REV. OF ECON. POLICY, vol. 22, no. 2 (2006), at 229-237 (describing the conditions under which a quantity instrument such as a quota should be preferred as a regulatory tool over a pricing scheme, and vice versa); Gary Yohe, *Towards a General Comparison of Price Controls and Quantity Controls Under Uncertainty*, REV. OF ECON. STUD., vol. 45, no. 2 (Jun. 1978), at 229–238; Martin L. Weitzman, *Prices vs. Quantities*, REV. OF ECON. STUD., vol. 41, no. 4 (Oct. 1974), at 477–491.

The economic justifications for net neutrality protection in the broadband market apply with equal force in the wireless context. In addition, applying different regulatory regimes to these modes of Internet access could pervert investment incentives in ways that would ultimately reduce the value of both wireless and broadband infrastructure.

If network neutrality rules are applied to broadband, but not to wireless, ISPs will have incentives to concentrate more of their investment in wireless infrastructure. By contrast, content developers will have incentives to focus more of their efforts on broadband, since their returns will be higher on the open platform. This mismatch of investment incentives could lower the value of both networks for ISPs, content creators, and end-users. Market participants will invest in the medium that will earn them the highest returns for their capital investments. Application developers and other content producers would therefore concentrate on creating products for the open platform (wired broadband). But ISPs would focus on investing in wireless, where they could extract fees in exchange for prioritization. Because the goal should be efficient investment in both content and infrastructure in both the wireless and broadband market, different rules in the two markets would have to be justified.

The Internet market in the United States, including its wireless component, has always functioned under neutrality principles. Excluding wireless from neutrality rules as part of this proceeding would inject harmful uncertainty into the market by allowing for a rapid departure from the status quo. It would generate many unknowns, including whether ISPs could price discriminate efficiently, and the degree to which content providers will be disincentivized, or simply less able to develop and deploy innovative content.

Regulatory flexibility and investor certainty are both important values that should be maximized, but are sometimes in tension. The specialized service exemption achieves a delicate balance by providing a degree of regulatory flexibility while providing a substantial degree of certainty for investors. Abandoning this carefully structured framework in favor of a completely non-neutral wireless market is premature.

In wireless, as well as in broadband, price-prioritization should be prohibited except for a narrow category of traffic that can be classified as specialized service. Pricing schemes based on data-usage, however, do not create the same problems. As long as a pricing plan charges amounts based on the amount of data being used, like AT&T's Mobility Plan, the market can accommodate tiered pricing as a mechanism to address congestion issues.

Some of wireless's distinguishing characteristics accentuate the risk of perverse incentives that would result from a non-neutral regime, and therefore underscore the need for neutrality protections to apply to wireless. For instance, limitations on spectrum availability heighten the need to ensure that sufficient capacity exists for the transmission of mainstream, or non-exempted, content. As with broadband, an overarching goal of the Commission's policy approach should be removing incentives to reduce investment in infrastructure expansion or maintenance, in order to increase

demand for, and revenues gleaned from, paid-prioritization. Limiting the ability of ISPs to extract fees from individual content providers in exchange for prioritized treatment over the network will ensure that content developers continue capturing revenue generated by the market.

To the extent that ISPs want or need to manage Internet traffic to deal reasonably with congestion, they should do so evenly for all services of the same type (e.g. video), providing vendor-neutral, but potentially service-specific, network management.

Sprint Nextel and other commentators believe that the application of open Internet principles to wireless platforms is unwarranted, as evidenced by the robust, nearly exponential growth of the wireless industry in the past several years.[21] Citing the number of wireless customers in the United States and number of applications that have been developed specifically for wireless, AT&T asserts that "only one conclusion can follow" from the magnitude of these figures, which is that "the wireless broadband marketplace presents no regulatory problem to solve," and that applying neutrality rules for the first time would "succeed only in harming customers and economic growth."[22]

As in the broadband context, the fact that the market is currently growing does not mean that there is no need for regulation. The same underlying market failures that justify applying neutrality rules to broadband networks—positive externalities that systemically cause underinvestment—exist in wireless context. Because of these externalities, neutrality regulations can play an important role in ensuring more efficient levels of investment in both Internet content and infrastructure. The government does not need to wait for an industry to fail altogether before getting involved; the government can take action to correct a market that is already producing surplus, but could be doing so to a greater extent.

Although there is a need to preserve net neutrality across broadband and wireless platforms, this is not to suggest that wireless and wired are equivalents. As a number of commentators point out, technical distinctions between the platforms caution against importing wholesale every neutrality policy designed initially for broadband to the wireless market.[23] Yet none of these distinctions eliminate or solve for the peculiar market failures that counsel in favor of tailored government intervention.

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[21] *See* Comments of Sprint Nextel Corporation to Federal Communications Commission, "In the Matter of Preserving the Open Internet, Broadband Industry Practices," GN Docket No. 09-191, WC Docket No. 07-52 (Oct. 12, 2010) at 2-6 (discussing the rapid and widespread deployment of wireless technology). *See also* Verizon Comments, *supra* note 7 at 6-10 (same).

[22] AT&T Comments, *supra* note 2 at 40.

[23] *See, e.g.*, Verizon Comments, *supra* note 7 at 16-23(highlighting the unique spectrum constraints, network-engineering demands, and mobility concerns of wireless providers); Telecommunications Comments, *supra* note 18 at 16-19 (noting that wireless networks face challenges that do not exist in the wireline broadband context).

Conclusion

The Commission has put forth a strong effort to craft a regulatory regime that maximizes the value of the Internet for access providers, content developers, and end-users. The analysis in these comments will allow the Commission to consider the economic benefits of protecting net neutrality in both the broadband and wireless markets, and how those benefits should affect the formulation of its Proposed Rule.

Respectfully submitted,

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